



Harvard University

Laboratory for Computer Graphics
48 Quincy Street, Cambridge, Massachusetts 02138

Allan H. Schmidt, *Executive Director*

April 81

MEMORANDUM TO: Senior Executives

RE: One-Day Executive Briefing Session on
Financial Management's Use of Computer Graphics
For Accounting, Financial Planning, and Control

I am sending you this special announcement because I want to make absolutely certain you are aware of a very important Executive Briefing Session we have planned for May 18 and August 24, 1981 at Harvard University, June 29, 1981 in New York City and August 14, 1981 in San Francisco. It is called "Financial Management's Use of Computer Graphics for Accounting, Financial Planning, and Control."

To our knowledge, this is the first public examination of the potentially revolutionary concept of adapting computer graphics to meet corporate financial information needs. The concept is one that is now being implemented in the most far-sighted corporations in America.

No doubt you have read about the explosion in computer graphics and the impact it is having on senior management. If you are like most members of senior management whom we have surveyed, you are intrigued by the management possibilities of this powerful new tool, but are too busy, too intimidated, or simply unable to get involved with the technical aspects. But you should, because the implications of the computer graphics revolution on financial management are staggering. As you will see when you read the enclosed prospectus, you can now use computer-generated graphics to picture your entire financial statement. How difficult is it? We will ask you to bring a copy of your own tabular financial statement to the Briefing and will teach you how to translate it to computer pictures on site.

This Briefing has been designed by senior management for senior management. It will give you, in language you can understand, all the information you need to decide when, how, and whether to proceed with your own computer graphics system for translating complex financial data into simple, easy-to-understand pictures. These pictures lend an incredible clarity to the comprehension by both financial and non-financial management of corporate financial statements, financial trends, and past, present, and future corporate performance.

Computer graphics is also an invaluable tool for communicating financial data to people outside of your corporation, such as investors, lenders, and the media.

At the end of the Briefing, you will know how to picture all your corporate financials, how to use proven patterns, and how to analyze your past performance and predict future results, as well as how to deal with vendors, how to build yourself a war room, how to sell the concept within your organization, and much more.

There have been articles extolling the virtues of computer graphics for senior management in such publications as Business Week, The Wall Street Journal, The New York Times, and Harvard Business Week, to name a few. The consensus is that graphics for management is not a "blue-sky" subject. It is happening now. Systems exist today that can have an immediate impact on your profitability and productivity. I think you should ask yourself if you can afford not to be completely up to date about this extraordinary and powerful tool.

Sincerely,

Allan Schmidt

Allan H. Schmidt

P.S. It is important to note that the Briefing is based on the only reported research in the use of computer-generated graphics to picture the entire corporate financial statement, and that it is strictly limited to senior management.

I look forward to seeing you personally at the Briefing and know that you will receive benefits for your financial management that are direct, immediate, and measurable.

Harvard University
Laboratory for Computer Graphics and Spatial Analysis

Announces

A Special One-Day Executive Briefing

FINANCIAL MANAGEMENT'S USE OF
COMPUTER GRAPHICS

For Accounting, Financial Planning, and Control

May 18, 1981
The Faculty Club
Harvard University

August 14, 1981
Hilton Hotel & Tower
San Francisco

June 29, 1981
The Harvard Club
New York City

August 24, 1981
The Faculty Club
Harvard University

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SUMMARY OF THE KEY BENEFITS YOU WILL RECEIVE FROM PARTICIPATION

At The End Of This Program, You Will Have Learned:

- How and why computer graphics are changing the way management gets and transmits high-level financial information.
- How computer graphics can dramatically improve your ability to communicate complex financial data to lenders, investors, and non-financial managers.
- How graphics are actually being used in key financial areas, including financial statement presentations, long-range planning, budget variance analysis, inventory control, receivable analysis, product mix analysis, and much more.
- Why you, as a high-level professional, cannot afford to be unfamiliar with a technology whose productivity and profit potential is so vast.
- How consistent graphics presentations of financial information have the power to help you communicate across international monetary systems.
- Why a consistent graphics presentation of financial information becomes a more powerful tool for you each month.
- How to utilize pattern recognition as the basis for alerting you and your firm to potentially serious financial and operating problems before they get out of hand.
- How a computer graphics presentation of past performance provides you with a much clearer picture of the future.
- How to select the most appropriate graphics format for your firm's financial presentations.
- How to graphically compare your firm with others in your industry.
- The advantages of computer graphics over conventional communication strategies for any specifiable areas of business activity.
- A set of tested standards you can adopt that will assure an effective graphics presentation of your financial planning and control system.
- The power, potential, and problems of using color -- and why you must know what message color gives.
- How to cost-justify graphics if you don't have this capability right now.
- What to look for in a vendor and how to select one.
- The main pitfalls of implementation into which most people stumble but which you can avoid.
- How to understand and make the most important hardware and software trade-offs.
- What is on the horizon in terms of future developments and how this should affect your current planning.
- How to modify various graphics system components so they can best be used for financial planning and control systems.
- How to install a graphic model of a complete planning and control system.
- How to design a war room -- the cost/benefit considerations.
- Guidelines for media presentations -- how you can select from among many.
- How to "sell" the concept of computer graphics within your own organization.
- If, when, and how your external auditors should be involved.
- How using graphics effectively can be immensely valuable to your own management development.

BACKGROUND AND PURPOSE OF THIS EXECUTIVE BRIEFING

Information access is a key problem for all managers, but for none is it more critical than for those involved in long-range financial planning, accounting, and control. To make the best decisions, senior financial managers must have the most current information, and they must have it in a form which both they, and those to whom they communicate, can quickly and accurately comprehend.

The revolutionary technology of computer graphics now enables you to see relationships among massive amounts of data even as they come from the computer.

Obviously, using graphics to better represent business information isn't new. What is new is the use of computers to generate graphic statements for you to use in your decision-making process with a minimum of delay. Computer graphics is a technology which can become a virtual godsend to you. The benefits in increased comprehension alone would justify the investment in needed hardware, software, and people.

Financial data portrayed through computer graphics will instantly help you recognize the picture of a well-balanced balance sheet, a profitable P&L statement, or a proper product mix. Once a pattern is defined, you will be able to identify even the most subtle changes in relationships.

Of course, you can (and do) press a button and have a computer give you a hundred pages of detailed numbers and facts. But now you can press a button and instantly translate tabular data into vital trends and a set of comprehensive financial pictures and you dramatically increase understanding of past data and its relevance to the present and the future. Even the most "numbers-oriented" managers will find their comprehension and communication dramatically enhanced by this way of portraying trends and relationships.

In the process of creating a picture of your data, you supplement the audit quality precision of pages of numerical printouts with a dramatic overview. Such a view is an invaluable asset, especially when you are reporting complex financial relationships to non-financial management, subordinates, lenders, investors, and others who might not be as comfortable with numbers and statistics as you are. And you can be certain that others are seeing the same patterns you see, because you no longer need to rely on their subjective judgment -- you are literally relying on tested financial "pictures."

There are six basic reasons why your top-level manager should be taking advantage of the new computer graphics techniques:

- The new technology is relatively inexpensive and fairly simple to use.
- Data is assimilated much more quickly and effectively by business people.
- Trends can be more easily described.

- Massive amounts of data can be shown succinctly.
- Decisions are made more accurately and easily.
- Financial graphs are easily explained to non-financial audiences.

It is our intent in this Briefing to help you understand how you can employ computer graphics in your own accounting and financial planning practices to increase productivity and heighten your powers of communication. We will teach you the most effective computer graphics financial presentations and how and when to use them. We will teach you about the hidden costs and risks inherent in this new technology, how to control those costs, and how to maximize the benefits computer graphics can bring you. You will also be provided with a tested financial statement format for your firm and a set of graphic standards that will help you install an appropriate graphics system. In fact, if you choose to attend the Briefing, we will ask that you bring with you a copy of your latest financial statement. You will be shown how to translate your balance sheet and revenue and expense statement into a tested reporting format on our on-site computer graphics system.

THE EXECUTIVE BRIEFING APPROACH

This is an exclusive, highly focused, one-day session directed at, and limited to, top management and their senior financial associates. We believe this Briefing is the only one of its kind.

This unique session has been designed to capture the essentials of this complex topic, to present them in the format designed by senior financial management, and to enable you to relate them specifically to your organization.

The program scope is far ranging, but it is not theoretical or technical. Its approach is intense, specific, and high-level. Conducted full-time by a financial professional, the Briefing is designed to bring the Harvard Laboratory's expertise to the problems explicitly raised by you as financial professionals yourselves, and to tailor the program to the particular needs you identify.

In effect, the program will create an atmosphere of professional consultation. It will enable you to tap years of Harvard Laboratory research and directly apply it to your own organization's specific financial information requirements.

SPECIAL FEATURES OF THIS EXECUTIVE BRIEFING

- Program content that is intensely practical and specifically geared to financial control. You will receive sets of action-oriented guidelines that will enable your staff to make immediate use of key elements in the Briefing.

- A specially developed materials package to enable you to continually relate to the key elements of the Briefing and to communicate them and implement them upon your return to your organization. This includes the Briefing Workbook containing all materials presented.
- An attendance limit of 35 to ensure a continuous process of identifying your specific concerns and directing the session to their fruitful resolution.
- Actual case examples from research to illustrate the application of this approach to "real-world" management problems.
- Informal breakfast, luncheon, and cocktail reception that encourage interaction with your counterparts -- financially oriented executives from other firms -- to reinforce the basic program.
- The continuous availability of the briefing leader for private consultation both during the program and at informal receptions.
- An opportunity for you to gain hands-on experience by translating your tabular financial statement into a computer graphics presentation using an on-site computer graphics system.

THE BRIEFING AGENDA

I. Case Study Introduction To Computer Graphics

Actual examples of computer graphics to enable you to compare a standard computer-generated tabular presentation with a graphic presentation of the same data. How more information can be shown graphically and at the same level of exactness; how pattern recognition develops quickly in people, and how to use that ability to pinpoint trends; why it is best to use more simple presentations than a few complex ones. The principles of communication behind standard graphic presentations; the advantages, complexities, and problems inherent in the use of color; how computer graphics is a communication system different from the familiar computer-generated report, the written and spoken language, and mathematics. Why that difference can make all the difference.

II. Graphics and the Accounting Picture: What Image Does A Graphic Project?

An expert tutorial on the most proven ways to present: Component Comparisons -- the relative importance of the part to the whole; Item Comparison -- a ranking among items; Time Series Comparison -- variations over time; Frequency Distributions -- the number of times an item appears in various categories; Co-Relationships -- how one component or item relates to another.

Also, how financial and accounting data can be shown using the basic type of comparisons. How the purpose of the various financial statements can be met using graphics. Why some footnotes are better shown in a graphic format. How to build a financial time series using standard financial statements. Why it is better to use a consistent format in presenting the results of long range planning, including the results of sophisticated modeling techniques.

III. How To Create The Most Meaningful Financial Accounting Picture

The recommended format for a complete computer-generated graphic presentation of the financial statement and supporting schedules. The graphic balance sheet; the graphic revenue and expense statement; the graphic statement of source and application of funds; the graphic change in current assets and current liabilities; the graphic change in equity; the graphic analysis of balance sheet and operating components; accounts receivable (aging, turnover, etc.); inventory (age, mix, turnover, etc.); product sales (mix, gross profit contribution, importance to whole, territory, etc.).

How the standards that build these statements can be used to build other financial presentations. Why these formats work. How to evaluate the use of graphics in your own organization. Why you can ask better questions using graphics. Why pattern recognition is fundamental to the decision-making process. Why consistency is critical. How to recognize the implications of changes in the pattern.

Using color to code components. Why color is a powerful ally to pattern recognition. What to do about the eight percent of men and two percent of women who are color blind. The potential for color.

IV. Hands-On Workshop: Translating Your Own Tabular Statement Into Computer-Generated Financial Pictures

Learning how to use a freestanding system to develop a printed graphics presentation of your balance sheet and revenue and expense statements. How to complete the data format sheet, enter into the terminal and watch it plot. (You should have with you a recent copy of your balance sheet and revenue and expense statement to gain maximum benefit from this workshop. If you have a problem with confidentiality, merely change the data and the name.)

V. How To Assess Your Needs

Guidelines for surveying your information needs. How to determine and picture the linkage between strategic planning, budgeting, and operational results. How to support pictures with tabular data. Why your current reporting system may not plot a true picture. How to determine the decisions to be made from each picture -- and why certain pictures should not be shown. How to bring marketing, manufacturing, accounting, and engineering into the picture. How to involve your external auditors.

VI. Hardware and Software: How To Determine What Will Work For You

Matching your special requirements with current hardware and software capabilities. How to make the best use of what you already have. What to look for in a system vendor. What to look for in a software vendor. Why the graphic printer is more important in the financial area than the graphic terminal. What you can expect in the future from graphic systems when the various systems merge. The analog financial statement in full color.

VII. Building Yourself A War Room

How to set up a war room; the various components to consider. Who can use it; who is responsible; who should fund it. What you should understand about the difference between a decision-making tool and an expensive toy. How to survive the new technological warfare. The cost/benefit considerations for financial planning and control; how to picture the bottom line for computer graphics. A set of guidelines for deciding the appropriate media for presentations. When to choose slides, overheads, printouts, or all of the above.

VIII. Some Practical Advice On Bringing The Picture Home

How to sell computer graphics to your organization (putting your best picture forward). What not to do. How to plan for the increased use and understanding of the financial data. How to respond to requests for more. How to really put to immediate use what you have learned at the session.

WHO SHOULD ATTEND THIS BRIEFING

- CEOs and other decision makers who need to be able to get the most complete, accurate, and concise financial planning and control data available in enough time to fully consider all alternatives before making a decision.
- Top-level financial executives who need financial information from which to plan, schedule and budget their operations.
- Top-level data processors and analysts who must be able to analyze, design, and program systems to implement financial planning and control systems based on computer graphics technology for high-level management.
- Top-level accountants and other professionals who will be using computer graphics to communicate the financial results of corporate efforts.
- Top-level long-range planners who must look to the past and plan for the future.

ABOUT THE BRIEFING LEADER -- DR. IRWIN M. JARETT, C.P.A.

Multi-faceted accountant who is pioneering the use of computer graphics in the regular presentation of financial statements • Founder and President of Irwin M. Jarrett, C.P.A., Ltd., an accounting firm that designs and installs computer graphic financial accounting systems • Heavily involved in research to measure the relative effectiveness of the transfer of business information using computer graphics presentations and to propose standards for their use • Associate Dean of the Southern Illinois University School of Medicine for ten years • Currently Professor of Medical Economics • Formerly Adjunct Professor at Tulane University School of Public Health and Manager in the Administrative Services division of Arthur Andersen & Co., where he was responsible for design and installation of large computer-based management information systems in banking, manufacturing, state government, and health care • Chairman of the Faculty of Accounting & Finance at Southern Illinois University, Edwardsville • Twenty-seven years of diversified management consulting and professional accounting experience with computers, "War Room" design, and management information • Ph.D. in accounting and management from Louisiana State University; M.B.A. and B.B.A. from Texas Tech University • C.P.A. in Illinois, Missouri, Louisiana, and Texas; member of the American Institute of C.P.A.'s, the Illinois Society of C.P.A.'s, the National Computer Graphics Association, and other professional associations • Nationally known seminar leader and speaker, author of numerous professional articles and technical papers, editor of a book, and a member of the editorial board of the newly formed "Computer Graphics for Management" •

A WORD ABOUT THE LABORATORY

The Laboratory for Computer Graphics and Spatial Analysis was established within the Graduate School of Design at Harvard University in 1965. The goals of the Laboratory are: to design and develop computer software for the analysis and graphic display of spatial data; to distribute software to government agencies, educational organizations, and interested professionals, and to conduct research concerning the definition and analysis of spatial structure and process.

The Laboratory is actively engaged in symposia, conferences, publications, and continuing professional development programs for professionals in computer cartography, geographics, and information management, and users in business, government, and education.

PROGRAM INFORMATION

DATES/SITES: The May 18th and August 24th Briefings will be held at The Faculty Club, Harvard University, 20 Quincy Street, Cambridge, Massachusetts. The June 29th Briefing will be held at The Harvard Club, 27 West 44th Street, New York City and the August 14th Briefing will be held at The Hilton Hotel & Tower, 333 O'Farrell Street, San Francisco.

ARRIVAL: 8:00-9:00 a.m. A continental registration breakfast will be served at 8:00 a.m.

ADJOURNMENT: 5:00 p.m. The Briefing leader will remain for discussion or consultation at the request of the attendees.

PROGRAM FEE: \$590 per person. This includes breakfast, luncheon, cocktail reception, and all program materials. If sending payment, please be sure to send it to the attention of Ms. Karen Smolens, Briefing Coordinator, Center for Management Research, 850 Boylston Street, Chestnut Hill, Massachusetts 02167.

ATTENDANCE LIMITATION: To ensure concentrated personal attention, total attendance will be limited to 35 senior managers, with no more than three from one company or autonomous division.

REGISTRATION: Please use the form below or call: Ms. Karen Smolens, Briefing Coordinator, Center for Management Research, 850 Boylston Street, Chestnut Hill, Massachusetts 02167, (617) 738-5020.

Registration: Financial Management's Use of Computer Graphics

IJ 1 2 3 4

Name _____

Title _____

Company _____

Address _____

City _____ State _____ Zip _____

Phone _____

Date _____ and Location _____ of session I plan to attend.

Other executive(s) attending:

Name _____ Title _____

Name _____ Title _____

() Please Bill Me () Payment Enclosed
(Payable to the Harvard Laboratory for Computer Graphics)

() I am unable to attend but would like further information about other Harvard Laboratory programs.

I understand that registration is limited to Senior Executives. Staff members are not encouraged to attend unless accompanied by a member of senior management.